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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,119	10/04/2000	Roger P. Hoffman	P/2-75 CIP	7289
7590 12/27/2004				
PHILIP M. WEISS, ESQ. WEISS & WEISS 310 OLD COUNTRY ROAD, SUITE 201 Garden City, NY 11530			EXAMINER COSIMANO, EDWARD R	
			ART UNIT 3629	PAPER NUMBER

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/679,119	HOFFMAN, ROGER P.	
	Examiner	Art Unit	
	Edward R. Cosimano	3629	<i>NW</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-46 and 48-71 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-46 and 48-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/4/00 & 9/23/04 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>September 03, 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Applicant should note the changes to patent practice and procedure:
 - A) effective December 01, 1997 as published in the Federal Register, Vol 62, No. 197, Friday October 10, 1997;
 - B) effective November 07, 2000 as published in the Federal Register, Vol 65, No. 54603, September 08, 2000; and
 - C) Amendment in revised format, Vol. 1267 of the Official Gazette published February 25, 2003.
2. Applicant's claim for the benefit of an earlier filing data under 35 U.S.C. § 120 is acknowledged.
3. The proposed drawing correction filed 23 September 2004 has not been approved.
4. The combined set of drawings filed 04 October 2000 and 23 September 2004 are objected to because:
 - A) the drawings must show every feature of the invention specified in the claims, therefore, the subject matter of:
 - (1) claim 59 in regard to using the internet as the source of the economic variable;
must be shown in the drawings as required by 37 CFR § 1.83(a) or the feature(s) canceled from the claim(s) (note: no new matter should be entered).
- 4.1 Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant

will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification or drawings. Applicant should note the requirements of 37 CFR § 1.74, § 1.75, § 1.84(o,p(5)), § 1.121(a)-1.121(f) & § 1.121(h)-1.121(i).

6. Claims 1-14, 16-46 & 48-71 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6.1 In regard to claims 1-14, 16-46 & 48-71, although on of ordinary skill at the time of the invention would know how to accomplish each of the individual recited actions/functions from the language of these claims, since, there is no clear and definite interconnection between one or more of the recited limitations of these claims, one of ordinary skill could not determine from the language of these claims whether or not they are in fact making and/or using the claimed invention. In this regard it is noted that from the language of these claims it is vague, indefinite and unclear:

A) in regard to claim 1, why, when and under what circumstance the "operating speed" would be adjusted, since as claimed the actual/current operating speed of the manufacturing facility has not either:

(1) been determined; or

(2) been compared to the "determined desired operating speed";

so as to indicate to one of ordinary skill, either:

(1) how much the actual operating would need to be adjusted; and

(2) whether the actual operating speed would be either increased or decreased while being adjusted to an unknown value.

B) in regard to claims 2, 21, 34, 60 & 61, why, when, under what circumstances, and by how much the "current operating speed" would be adjusted in response to the comparison, since as claimed the actual/current operating speed of the

manufacturing facility is to be adjusted, but the claim fails to indicate to what end the current operating speed is to be adjusted so as to indicate to one of ordinary skill, either:

(1) to what end the current operating speed is to be adjusted, for example to match the desired operating speed or to some other value; or

(2) by how much the actual operating would need to be adjusted; or

(3) whether the actual operating speed would be either increased or decreased while being adjusted to an unknown value.

C) in regard to:

(1) claims 3, 6-11, 22-29, 35-46, 48, 62, 63, 65-67, 70 & 71 and how the "cost of manufacturing" may be used as the economic variable; or

(2) claims 3-5, 13, 14, 16, 19, 22-29, 35-46, 48, 62, 63, 67 & 71 and how either the "manufacturing inflows" or the "manufacturing outflows" may be used; or

(3) claims 9-10, 41, 42 & 44 and how "one or more breaks in production" may be used; or

(4) claim 12 and how the "price of manufacturing inflows" may be used; or

(5) claims 13, 14, 16, 19, 27 & 45, how the sales information may be used; or

(6) claims 19 & 32 and the "purchase of inflows", "capital additions" or "capital subtractions" or "changes in equipment" may be used; since as claimed these values have not been entered or determined.

D) in regard to claims 17, 30 & 49 and which if the inputted "business transaction" are used in the function/action of "computing the economic efficiency of the facility with the proposed transaction leaving the remaining variables constant", since as recited in the function/action of "inputting information on the business transactions that affects the economic variables", there are a number of entered "business transactions".

E) in regard to claims 22-29 how the "optimal operating speed" may be either determined or achieved, since as claimed this the criteria for determining what would be considered as being the "optimal operating speed" has not been set forth or determined.

F) in regard to claims 33-46, 48 & 56, how the received "economic input" that "varies depending on the operating speed" and the determined "desired speed" that is "dependent on the economic input" is converted into the "optimal speed" that is outputted to the computer of the "manufacturing facility".

6.2 In regard to claims 22-29, since claim 21 contains 2 (TWO) means for determining and each of claims 22-29 adds at least one additional means for determining, each of applicant's references to "the means for determining" in claims 22-29 is vague, indefinite and unclear as to which of the previously mentioned "means for determining" in claims 22-29 is being referred by to by these phrases in claims 22-29.

6.3 In regard to claims 36-46 & 48, since claim 35 contains 2 (TWO) means for determining and each of claims 36-46 & 48 adds at least one additional means for determining, each of applicant's references to "the means for determining" in claims 36-46 & 48 is vague, indefinite and unclear as to which of the previously mentioned "means for determining" in claims 36-46 & 48 is being referred by to by these phrases in claims 36-46 & 48.

6.4 Claims not specifically mentioned above, inherit the defects of the base claim through dependency. For the above reason(s), applicant has failed to particularly point out what is regarded as the invention.

7. 35 U.S.C. § 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

7.1 Claims 17-20, 30-46, 48-51, 53 & 55-57 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter.

7.1.1 The instant claims recite a system, (claims 30-32 & 55), and a method comprising a series of steps to be performed, (claims 17-20 & 53), and a manufacture comprising program

code to be executed by a computer, (claims 33-46, 48-51, 56 & 57), which have a disclosed practical application in the technological or useful arts. Further, the instant claims do not merely define either a computer program, a data structure, non-functional descriptive material, (i.e. mere data) or a natural phenomenon.

7.1.2 In regard to claims 17-20, 30-46, 48-51, 53 & 55-57, the invention as set forth in these claims merely describes:

A) in regard to claims 17-20 & 53, the actions of obtaining information, entering information, computing a hypothetical efficiency and indicating the hypothetical efficiency to an user.

B) in regard to claims 30-32, 49-51, 55 & 57, means for performing the actions of obtaining information, entering information, computing a hypothetical efficiency and indicating the hypothetical efficiency to an user.

C) in regard to claims 33-46, 48 & 56, an article with instructions for performing the actions of receiving input information, determining a desired speed; outputting the "optimal speed" and entering the "optimal speed into a computer of a manufacturing facility.

However, the process/system/manufacture as recited in these claims does not apply the result of either the claim as a whole or the manipulations of data as recited in these claims in such a manner so as to be tangibly used in a concrete manner and hence to produce a useful concrete and tangible result, that is a concrete and tangible application with in the technological or useful arts.

7.1.3 It is further noted that applicant has not recited in these claims a specific process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, which is either:

A) altered or changed or modified by the invention recited in claims; or

B) utilizes the result of the invention recited in these claims; or

C) is operated or controlled by the result of the invention recited in these claims.

7.1.4 It is further noted in regard to claims 17-20, 30-46, 48-51, 53 & 55-57, that as claimed applicant has not claimed:

A) pre computer processing, since the claims fail to recited that the data, which originates from an unknown source, is manipulated or transformed/changed before it is processed; or

B) post computer processing, since the claims fail to recited that the data which represents the result of the claimed manipulation, is neither manipulated nor used nor changed by any device after it has been processed; or

C) a practical use of the claimed invention by any physical system or device or method outside of a statement of the intended use of the claimed invention; or

D) process steps or physical acts/operations that would affect the internal operation of a computer/machine as were found to be statutory in either In re McIlroy 170 USPQ 31 (CCPA, 1971) or In re Waldbaum 173 USPQ 430 (CCPA, 1972); or

E) process steps or physical acts/operations that would be considered as going beyond the manipulation of "abstract ideas" as were found to be non-statutory in In re Warmerdam 31 USPQ2d 1754 (CAFC, 1994); or

F) a concrete and tangible practical application of either:

(1) the invention as a whole; or

(2) the final results of the manipulations/actions with in the technological or useful arts;

note In re Sarkar 200 USPQ 132 (CCPA, 1978) where the process step of "constructing said obstruction within the actual open channel at the specified adjusted location indicated by the mathematical model" was held to be so tenuous connected to the remaining process steps as to not be a process with in the scope of 35 U.S.C. § 101.

Hence, the invention of claims 17-20, 30-46, 48-51, 53 & 55-57 is merely directed to an hypothetical mental exercise that manipulates an abstract idea of determining a number representing a hypothetical "efficiency" or "operating speed" that is never used or implemented and hence is with out a claimed concrete and tangible practical application of the abstract idea, (note In re Beauregard 35 USPQ2d 1383 (CAFC 1995) and the associated claims of U.S. Patent 5,710,578; and State Street Bank & Trust Co. v. Signature Financial Group Inc. 47 USPQ2d 1596 (CAFC 1998)).

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7.1.5 It is further noted that the type/nature of either the data or the calculated numbers does not affect the operation of the claimed invention and hence are considered to be non function descriptive material, (note In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983)).

7.1.6 In practical terms, claims define nonstatutory processes if they:

A) consist solely of mathematical operations without some claimed practical application (i.e., executing a “mathematical algorithm”); or

B) simply manipulate abstract ideas, e.g., a bid (Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759),

without some claimed practical application of the mathematics or abstract idea.

7.1.7 In view of the above analysis claims 17-20, 30-46, 48-51, 53 & 55-57, as a whole, are directed to an hypothetical mental exercise that merely manipulates mathematics or an abstract idea without a claimed concrete and tangible practical application of the mathematics or abstract idea, and hence are directed to non-statutory subject matter.

7.2 Claims 1-14, 16-46, 48-56 & 58-71 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter.

7.2.1 As set forth by the Court in:

A) In re Musgrave 167 USPQ 280 at 289-290 (CCPA 1970), “We cannot agree with the Board that these claims (all the steps of which can be carried out by the disclosed apparatus) are directed to non-statutory processes merely because some or all of the steps therein can also be carried out in or with the aid of the human mind or because it may be necessary for one performing the process to think. All that is necessary, in our view, to make a sequence of operational steps a statutory “process” within 35 U.S.C. 101 is that it be in the technological arts so as to be in consonance with the Constitutional purpose to promote the progress of “useful arts.” Cons. Art. 1, sec. 8.”, {emphasis added}; and

B) In re Sarkar 100 USPQ 132 @ 136-137 (CCPA 1978), echoing the Board of Appeals stated in regard to claim 14 “14. A method of locating an obstruction in an open channel to affect flow in a predetermined manner comprising:

a) obtaining the dimensions of said obstruction which affect the parameters of flow;

b) constructing a mathematical model of at least that portion of the open channel in which said obstruction is to be located in accordance with the method of claim 1 using those dimensions obtained in step (a) above;

c) adjusting the location of said obstruction within said mathematical model until the desired effect upon flow is obtained in said model; and thereafter

d) constructing said obstruction within the actual open channel at the specified adjusted location indicated by the mathematical model.”;

and “Concerning claims 14-39 and the significance of "post-solution activity," like building a bridge or dam, the board concluded: While it is true that the final step in each of these claims makes reference to the mathematical result achieved by performing the prior recited steps, we consider the connection to be so tenuous that the several steps recited in each claim when considered as a whole do not constitute a proper method under the statute.”, {emphasis added}.

7.2.2 Further, it is noted in regard to claims 14-39 of Sarkar, although step (d) of claim 14 of Sarkar references the result of step (c) of claim 14 of Sarkar it is clear from the language of step (c) of claim 14 of Sarkar that multiple adjustments to the location of the obstruction are required to be made until a location with the desired effect has been determined. Hence, the reference to constructing the obstruction at the “specified adjusted location” in step (d) of claim 14 of Sarkar is vague, indefinite and unclear in regard to which one of the possible multiple adjusted locations of the obstruction that were used during step (c) of claim 14 of Sarkar would be used when constructing the obstruction as required by step (d) of Sarkar.

Therefore, without a clear connection between step (d) of Sarkar and the remaining steps of claim 14 of Sarkar, the Board of Appeals and the Court held that these claims were not a process with in the meaning of process as used in 35 U.S.C. § 101 and hence were directed to non statutory subject matter.

7.2.3 As can be seen from claims 1-14, 16-32, 52-55 & 58-71, these claims are directed to a series of devices for performing various functions or steps/actions/functions, which as set forth above in regard to the rejection of claims 1-14, 16-32, 52-55 & 58-71 under 35 U.S.C. § 112 2nd paragraph, are not clearly and definitely interconnected to one another and therefore do not provide an operative useful machine/system or method/process with in the meaning of machine or process as used in 35 U.S.C. § 101.

7.2.4 Further on regard to the computer useable/readable medium of claim 33-46, 48-51, 56 & 57, the recited limitations are not clearly and definitely interconnected to one another and a device to execute the program code/instructions on the media so as to provide a useful operative and useful manufacture with in the meaning of machine or process as used in 35 U.S.C. § 101.

7.3 Claims 1-14, 16-46 & 48-71 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter, since:

A) in regard to claims 1-14, 16-46 & 48-71, these claims fail to comply with the "requirements this title, namely 35 U.S.C. § 112 2nd paragraph as set forth above.

B) in regard to claims 1-14, 16-46 & 48-71, these claims fail to comply with the "requirements this title, namely 35 U.S.C. § 103 as set forth below.

8. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(c) Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

8.1 Claims 1-14, 16-46 & 48-71 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hart et al (3,490,689) in view of obvious business considerations as evidenced by Meng (4,442,710) and Key et al (Reference U on PTO-892).

8.1.1 In regard to claims 1-14, 16-46 & 48-71, Hart et al ('689) discloses a paper making process which is controlled to maximize to profit, i.e. profit margin, for the paper making process. To determine the profit margin for the paper making process, Hart et al ('689) considers economic factors:

- A) the amount and cost of raw materials, (manufacturing inflows);
- B) the amount and price of the finished product (manufacturing outflows);
- C) the overhead and/or equipment and/or labor cost for the paper making process; and
- D) the quality of the finished product.

Based on this information the operator determined the desired operating conditions of the paper making process of Hart et al ('689). The control system of Hart et al ('689) then:

- A) determines the actual operating conditions of the paper making process;
- B) compares this actual and desired operating conditions; and
- C) controls the paper making process based on this comparison.

Further, Hart et al ('689) considers the efficiency of the paper making process, in that the process conditions are varied to determine the best operating conditions for the paper making process.

8.1.2 Hart et al ('689) does not explicitly disclose that the speed of the process is based on economic variables, however, at column 3, Hart et al ('689) discloses that the profit margin is based on economic factors:

- A) the amount and cost of raw materials, (manufacturing inflows);

- B) the amount and price of the finished product (manufacturing outflows);
- C) the overhead and/or equipment and/or labor cost for the paper making process; and
- D) the quality of the finished product.

Since one of ordinary skill in operating a business would recognize that:

- (1) any manufacturing process which does not have enough raw materials can not produce a finished product; and
- (2) any manufacturing process which does not produce either:
 - (a) a sellable finished product, or
 - (b) a sufficient quantity of the finished product,

because at some the operating conditions of the process, i.e. the speed of the process, would not be profitable to the operator, it would have been obvious to one of ordinary skill at the time the invention was made that the speed of the Hart et al ('689)'s paper making process is controlled based on economic variables. Note: either Meng ('710) or Keys et al (U) which controls the speed of a process based on cost-effective business strategy that considers economic factors.

8.1.3 In regard to the claimed program product, although Hart et al ('689) discloses an analog/computer system to perform the disclosed control functions, it would have been obvious to one of ordinary skill at the time the invention was made that control system of Hart et al ('689) could be upgrades to a computerized controller with a control program since the prior art is replete with digital computers performing the same functions as the control system of Hart et al ('689). Note Meng ('710) which uses a computerized controller to control the speed of a process based on cost-effective business strategy.

9. Response to applicant's arguments.

9.1 All rejections and objections of the previous Office action not repeated or modified and repeated here in have been over come by applicant's last response.

9.2 As per the 35 U.S.C. § 103 rejection, since:

- A) the instant claims fail to recite a specific speed that the applied prior art can physically not achieve; and

B) the teachings of the applied prior art would apply regardless of the operating speed; and

C) the alleged evidence, that is, Apzoumaulan: "Want Higher Earnings? Slow Down, Says G-P"; Official Board Markets, 23 September 2000, vol. 76, no. 39, pages 1, 4 & 8, merely teaches that instead of stopping a machine for maintenance the machine need only be slowed down while the maintenance is being performed.

applicant's arguments concerning the difference in operating speeds over the time period between the applied prior art and the time that the invention was made are deemed non persuasive.

10. The shorten statutory period of response is set to expire 3 (three) months from the mailing date of this Office action.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Cosimano whose telephone number is (703) 305-9783. The examiner can normally be reached Monday through Thursday from 7:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss, can be reached on (703)-308-2702. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

11.1 The fax phone number for UNOFFICIAL/DRAFT FAXES is (703) 746-7240.

11.2 The fax phone number for OFFICIAL FAXES is (703) 872-9306.

11.3 The fax phone number for AFTER FINAL FAXES is (703) 872-9306.

12/18/04


Edward R. Cosimano
Primary Examiner A.U. 3629